

Sheet 7

Problem 1&2

```
// Computers & control Engineering Dept. - First Year Students
// Computer Programming(2) - Second Term - 2011/2012
// This program used to count the number of characters and words for a
series of characters
#include <stdio.h>
#include <conio.h>
void main()
{
    int charcnt = 0;
    int wordcnt = 0;

    char ch;
    printf("Type in your phras: \n");
    while ((ch=getche())!= '.')
    {
        charcnt++;
        if(ch==' '||ch=='.')
        {
            wordcnt++;
            charcnt--;
        }
    }
    wordcnt++;
    printf("\n character count is: %d", charcnt);
    printf("\n word count is: %d", wordcnt);
}
```

Problem 3

```
// Computers & control Engineering Dept. - First Year Students
// Computer Programming(2) - Second Term - 2011/2012
#include <iostream.h>
#include <math.h>
double compute(int n, int r)
{
    double x=0;
    for(int i=1;i<=n;i++)
        x+= pow(i,r);
    return x;
}
void print(double x)
{
    cout<<"The result is: "<<x<<endl;
}
void main()
{
    int r,n;
    double x;
    cout<<"Enter the values of r and n: "<<endl;
    cin>>r>>n;
    x=compute(n,r);
}
```

```
    print(x);  
}
```

Problem 5

```
// Computers & control Engineering Dept. - First Year Students  
// Computer Programming(2) - Second Term - 2011/2012  
#include<iostream>  
#include<string>  
using namespace std;  
int result()  
{  
    int avg=0,sum=0,degree[16];  
    for(int i=0;i<16;i++)  
    {  
        cout<<"Enter the degree :"<<endl;  
        cin>>degree[i];  
        sum+=degree[i];  
    }  
    avg=sum/16;  
    return avg;  
}  
void print(string name,int x)  
{  
    cout<<"Name is: "<<name<<endl<<"The average is: "<<x  
        <<endl<<"The status is: ";  
    if (0<=x&&x<=49)  
        cout<<"Failed";  
    else if (50<=x&&x<=64)  
        cout<<"Passed";  
    else if (65<=x&&x<=74)  
        cout<<"Good";  
    else if (75<=x&&x<=84)  
        cout<<"Very good";  
    else  
        cout<<"Excellent";  
}  
void main()  
{  
    int x;  
    string name;  
    cout<<"Enter the name: ";  
    cin>>name;  
    x=result();  
    print(name,x);  
}
```

Problem 6

```
// Computers & control Engineering Dept. - First Year Students
// Computer Programming(2) - Second Term - 2011/2012
#include <iostream.h>
void main()
{
    char daynames[7][10]={"Monday","Tuesday","Wednesday","Thursday","Friday",
        "Saturday","Sunday"};
    double sales[7];
    char salesperson[30];
    double maxsales, totalsales;
    int day, maxday;
    cout<<"Enter the name of the salesperson: ";
    cin.getline(salesperson,30);
    for(day=0;day<7;++day)
    {
        cout<<"\n\nEnter the sales for "<<daynames[day]<<" : ";
        cin>>sales[day];
    }
    totalsales=0;
    maxday=0;
    maxsales=sales[0];
    for(day=0;day<7;++day)
    {
        if(sales[day]>maxsales)
        {
            maxsales=sales[day];
            maxday=day;
        }
        totalsales+=sales[day];
    }
    cout<<"\n\nThe total sales for " <<salesperson<<" are:
"<<totalsales;
    cout<<"\n\nThe highest sales were: "<<maxsales;
    cout<<"\n\nThe highest sales occurred on:
"<<daynames[maxday]<<endl;
}
```

Problem 11

```
// Computers & control Engineering Dept. - First Year Students
// Computer Programming(2) - Second Term - 2011/2012
#include <graphics.h>

void main()
{
    int driver, mode;
    int xrad=150,yrad=0;
    int xc=250,y=100;
    int stangle=0,endangle=360;
    driver=DETECT; //the program compiler recognize the type of the
monitor
    init_graph(&driver,&mode," ");
    for(yrad=0;yrad<100;yrad+=2)
        ellipse(xc,yc,stangle,endangle,xrad,yrad);
    moveto(200,90);
    setlinestyle(DOTTED_LINE,IGNORED,NORM_WIDTH);
    setcolor(BLUE);
    setbcolor(RED);
    getch();
    close_graph();
}
```